DOT specification	113A60W	113C120W
Design service temperature, °F.	−423	−260.
Material	§ 179.400–5	§ 179.400–5.
Impact test (weld and plate material).	§ 179.400–5(c)	§ 179.400–5(c).
Impact test values	§ 179.400–5(d)	§ 179.400–5(d).
Standard heat transfer rate. (Btu per day per lb. of water capacity, max.) (see § 179.400–4).	0.097	0.4121.
Bursting pressure, min. psig.	240	300.
Minimum plate thickness shell, inches (see § 179.400–7(a)).	3/16	3/16.
Minimum head thickness, inches (see § 179.400–8 (a), (b), and (c)).	3/16	3/16.
Test pressure, psig (see § 179.400–16).	60	120.
Safety vent bursting pressure, max. psig.	60	120.
Pressure relief valve start-to-discharge pressure, psig (± 3 psi).	30	75.
Pressure relief valve vapor tight pressure, min. psig.	24	60.
Pressure relief valve flow rating pressure, max. psig.	40	85.
Alternate pressure relief valve start to-discharge pressure, psig (± 3 psi).		90.
Alternate pressure relief valve vapor tight pressure, min. psig.		72.
Alternate pressure relief valve flow rating pressure, max. psig.		100.
Pressure control valve Start-to-vent, max. psig (see § 179.400–20(c)(4)).	17	Not required.
Relief device discharge restrictions.	§ 179.400–20	179.400–20.
Transfer line insulation	§ 179.400–17	Not required.

[Amdt. 179–32, 48 FR 27708, June 16, 1983, as amended at 49 FR 24318, June 12, 1984; 65 FR 58632, Sept. 29, 2000; 66 FR 45390, Aug. 28, 2001]

§ 179.500 Specification DOT–107A * * * * seamless steel tank car tanks.

§ 179.500–1 Tanks built under these specifications shall meet the requirements of § 179.500.

§ 179.500–3 Type and general requirements.

(a) Tanks built under this specification shall be hollow forged or drawn in one piece. Forged tanks shall be machined inside and outside before ends are necked-down and, after necking-down, the ends shall be machined to size on the ends and outside diameter. Machining not necessary on inside or outside of seamless steel tubing, but required on ends after necking-down.

(b) For tanks made in foreign countries, chemical analysis of material and all tests as specified must be carried out within the limits of the United States under supervision of a competent and disinterested inspector; in addition to which, provisions in § 179.500–18 (b) and (c) shall be carried out at the point of manufacture by a recognized inspection bureau with principal office in the United States.

(c) The term ''marked end'' and ''marked test pressure'' used throughout this specification are defined as follows:

(1) ''Marked end'' is that end of the tank on which marks prescribed in § 179.500–17 are stamped.

(2) ''Marked test pressure'' is that pressure in psig which is indicated by the figures substituted for the **** in the marking DOT–107A **** stamped on the marked end of tank.

(d) The gas pressure at 130°F in the tank shall not exceed 7/10 of the marked test pressure of the tank.

[Amdt. 179–32, 48 FR 27708, June 16, 1983, as amended at 66 FR 45186, 45391, Aug. 28, 2001]

§ 179.500–4 Thickness of wall.

(a) Minimum thickness of wall of each finished tank shall be such that at a pressure equal to 7/10 of the marked test pressure of the tank, the calculated fiber stress in psi at inner wall of tank multiplied by 3.0 will not exceed the tensile strength of any specimen taken from the tank and tested as prescribed in § 179.500–7(b). Minimum wall thickness shall be ¼ inch.

(b) Calculations to determine the maximum marked test pressure permitted to be marked on the tank shall be made by the formula:

$$P = [10S(D^2 - d^2)] / [7(D^2+d^2)]$$

Where:

P = Maximum marked test pressure permitted;

$$S = U / 3.0$$

Where:

U = Tensile strength of that specimen which shows the lower tensile strength of the two